



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,191	02/25/2002	Katsuya Yoshida	8040-1002	2765

466 7590 09/22/2004

YOUNG & THOMPSON  
745 SOUTH 23RD STREET  
2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER
----------

IQBAL, KHAWAR

ART UNIT	PAPER NUMBER
----------	--------------

2686

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/081,191

Applicant(s)

YOSHIDA, KATSUYA

Examiner

Khawar Iqbal

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2-25-02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-18 and 25-30 is/are rejected.
- 7) ☒ Claim(s) 4-9 and 19-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,10-18,25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funk et al (6766164) and further in view of Causey (6687500).
3. Regarding claim 1 Funk et al teaches a base testing apparatus for use in a CDMA communication system in combination with an active base transceiver station that has a plurality of sector transceivers corresponding to a plurality of sectors in a service area, respectively, the base station testing apparatus having an internal mobile terminal placed therein and comprising (figs. 1,2):

first means for individually adjusting degrees of coupling between the internal mobile terminal and each of the transceivers, respectively (col.2, lines 46-63, col. 3, lines 6-45); and

second means, coupled to the first means, for reproducing a handover test of the sector transceivers between two adjacent ones of the sectors by controlling the degrees of coupling between the internal mobile terminal and each sector transceiver through the first means (col.8, lines 17-30,col. 14, lines 48-62, see above). Funk et al teaches handoff procedures, traffic channel power control, and voice signal quality may be tested and optimized using the RF recreating apparatus 100 described above under

constant RF conditions extracted from a field test data file. Funk et al does not specifically teach softer handover.

In an analogous art, Causey teaches softer handover test (col. 6, lines 30-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Funk et al by specifically adding feature softer handover test in order to enhance system performance of the system purpose of increasing efficiency for testing softer handover functionality of mobile station such as cellular telephone being handed off in code division multiple access communication as taught by Causey.

Regarding claims 2,17 Funk et al teaches wherein the degrees of coupling are defined by attenuation values and the first means comprises: a plurality of pre-set attenuators which are made to correspond to the transceivers in the BTS and each of which provides at least three attenuation values different from one another (col. 5, lines 25-35, col. 7, lines 50-65, lines col. 12, lines 1-12).

Regarding claims 3,18 Funk et al teaches wherein each of the pre-set attenuators provides, as at least three attenuation values, a first attenuation value, a second attenuation value smaller than the first attenuation value, and a third attenuation value smaller than the second attenuation value (col. 5, lines 25-35, col. 7, lines 50-65, lines col. 12, lines 1-12).

Regarding claims 10,25 Funk et al teaches setting means for setting a sector number assigned to each sector to indicate a sector; control means for controlling the degrees of coupling in the first means to reproduce the handover test so that the

degrees of coupling are selected from a first degree of coupling between the internal mobile terminal and the sector transceiver of the indicated sector, a second degree of coupling between the internal mobile terminal and an adjacent sector transceiver of an adjacent sector to the indicated sector, and a third degree of coupling between the internal mobile terminal and the remaining sector transmitters (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30, col. 14, lines 48-62). Funk et al does not specifically teach softer handover.

In an analogous art, Causey teaches softer handover test (col. 6, lines 30-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Funk et al by specifically adding feature softer handover test in order to enhance system performance of the system purpose of increasing efficiency for testing softer handover functionality of mobile station such as cellular telephone being handed off in code division multiple access communication as taught by Causey.

Regarding claims 11,26 Funk et al teaches wherein the degrees of coupling are defined by attenuation values and the first degree of coupling is defined by a first attenuation value while the second degree is defined by a second attenuation value smaller than the first attenuation value and the third degree is defined by a third attenuation value smaller than the second attenuation value (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30, col. 14, lines 48-62).

Regarding claims 12,27 Funk et al teaches wherein the second means further reproduces the handover test by executing a call connection test between two radio

paths between the internal mobile terminal and the indicated sector and between the internal mobile terminal and the adjacent sector (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30, col. 14, lines 48-62). Funk et al teaches handoff procedures, traffic channel power control, and voice signal quality may be tested and optimized using the RF recreating apparatus 100 described above under constant RF conditions extracted from a field test data file. Funk et al does not specifically teach softer handover.

In an analogous art, Causey teaches softer handover test (col. 6, lines 30-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Funk et al by specifically adding feature softer handover test in order to enhance system performance of the system purpose of increasing efficiency for testing softer handover functionality of mobile station such as cellular telephone being handed off in code division multiple access communication as taught by Causey.

Regarding claims 13,28 Funk et al teaches wherein the radio path between the internal mobile terminal and the indicated sector transceiver is kept at the first attenuation value while the other radio path between the internal mobile terminal and the adjacent sector transceiver is kept at the second attenuation value and the remaining radio paths are kept at the third attenuation value (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30, col. 14, lines 48-62).

Regarding claims 14,29 Funk et al teaches wherein the second means further executes another call connection test of the radio path between the internal mobile terminal and the indicated sector transceiver before the call connection test of the two

radio paths and a further call connection test of another radio path between the internal mobile path and the adjacent sector transceiver after the call connection test of the two radio paths (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30,col. 14, lines 48-62).

Regarding claims 15,30 Funk et al teaches wherein each of the call connection test of the radio path or the radio paths monitors a power control time interval in consideration of the handover operation (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30,col. 14, lines 48-62). Funk et al does not specifically teach softer handover.

In an analogous art, Causey teaches softer handover test (col. 6, lines 30-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Funk et al by specifically adding feature softer handover test in order to enhance system performance of the system purpose of increasing efficiency for testing softer handover functionality of mobile station such as cellular telephone being handed off in code division multiple access communication as taught by Causey.

Regarding claim 16 Funk et al teaches a method of testing an active base transceiver station (BTS) used in a CDMA communication system, the active base transceiver station having a plurality of sector transceivers corresponding to a plurality of sectors in a service area, respectively, the method being executed by the use of an internal mobile terminal and comprising the steps of (figs. 1,2):

individually adjusting degrees of coupling between the internal mobile terminal and each of the transceivers, respectively; and reproducing a handover test of the sector transceivers between two adjacent ones of the sectors by controlling the degrees

Art Unit: 2686

of coupling between the internal mobile terminal and each sector transceiver through the first means (col. 2, lines 46-63, col. 3, lines 6-45, col. 8, lines 17-30, col. 14, lines 48-62). Funk et al teaches handoff procedures, traffic channel power control, and voice signal quality may be tested and optimized using the RF recreating apparatus 100 described above under constant RF conditions extracted from a field test data file. Funk et al does not specifically teach softer handover.

In an analogous art, Causey teaches softer handover test (col. 6, lines 30-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Funk et al by specifically adding feature softer handover test in order to enhance system performance of the system purpose of increasing efficiency for testing softer handover functionality of mobile station such as cellular telephone being handed off in code division multiple access communication as taught by Causey.

#### ***Allowable Subject Matter***

4. Claims 4-9 and 19-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, Shapira (20030073463), Mount et al (6272337), Kim et al



Art Unit: 2686

(6128474) and Cheng et al (6154638) teach allowing wireless communications equipment testing and optimization without repeated field testing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **BANKS-HAROLD, MARSHA**, can be reached at 703-305-4379.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2684 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal

*Marsha D Banks-Harold*

MARSHA D. BANKS-HAROLD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600